REMARKS

Claim Status

Claims 1-69 are pending in the instant application, with claims 41-57 withdrawn as directed to a non-elected invention. No claims are amended, cancelled, or newly added by means of this paper.

Double Patenting

Claims 1-40 and 58-69 stand rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claims 1-36 of U.S. Patent No. 7,142,987 (the '987 patent). Filed concurrently with this paper is a terminal disclaimer relating to the '987 patent. The terminal disclaimer is submitted on behalf of GenVault Corporation, the assignee of 100% of Applicant's interest in the present application. The filing of this terminal disclaimer obviates the present nonstatutory obviousness-type double patenting rejection. Accordingly, Applicant requests that this rejection be withdrawn.

Claims 1-40 and 58-69 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claims 115-121, 134-137, 148-150, and 158-165 of co-pending U.S. Application No. 10/150,771. Because the claims of U.S. Application No. 10/150,771 currently stand rejected for reasons other than obviousness-type double patenting, Applicant is under no obligation to respond to this rejection at this time.

Rejections Under 35 U.S.C. § 102

Claims 1-40 and 58-69 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by WO 96/11046 (Williams et al.). Applicant respectfully traverses this rejection.

Applicant submits that Williams et al. do not anticipate the presently claimed invention because Williams et al. do not disclose each and every limitation of the presently claimed invention. The presently claimed invention is directed to sample carriers comprising one or more structural arrays and a plurality of discrete sample nodes. Each sample node is a discrete structure, removably attached to one of the structural arrays at a respective attachment point and comprises a sample support medium operative to carry a discrete sample in desiccated form.

Williams et al. disclose an apparatus for tracking and processing biological samples. The samples are stored on sample cards (*e.g.*, made from filter paper), and the sample cards are maintained in a stacker. *See, e.g.*, WO 96/11046 at pp. 18-19. According to the Office Action, the presently claimed structural array reads on the stacker (107) of Williams et al., while the claimed discrete sample nodes read on the sample cards (104) of Williams et al. *See* Office Action at p. 3. In addition, the Office Action asserts that the placement of sample cards (104) in the stacker (107) satisfies the limitation of the presently claimed invention that the nodes are reversibly attached to the structural array. *Id.*

As described and depicted in the specification and drawings of the present application, however, sample nodes consistent with the claims are unitary elements designed to carry an individual sample and *physically bound* to a structural array at a corresponding attachment point. *See, e.g.*, p. 32, line 1, to p. 35, line 29, of the specification, and Figure 5. Contrary to the position taken in the Office Action, the mere placement of sample cards (104) in a stacker (107), as described in Williams et al., does not anticipate discrete sample nodes that are *reversibly attached* to a structural array at a *respective attachment point*. The type of attachment contemplated in the present specification is one that holds the sample node in a particular position on the structural array and is sufficiently permanent so as to require an input of energy to break the attachment. For example, as set forth in the specification:

> [A] discrete sample node 529 may be attached to sample structure 524 at attachment point 525. In the FIG. 5C embodiment, a laser 599 may provide sufficient energy in the form of coherent light to attachment point 525 to remove sample node 529. Those of skill in the art will appreciate that other means, mechanisms, or devices may be employed to remove sample node 529 from structural array 520C; accordingly, a cutting or clipping apparatus, microelectromechanical devices (MEMS), or electrical circuit elements such as fuses, for example, may be employed in lieu of laser 599 to provide energy necessary to separate sample node 529 from sample structure 524.

See page 35, lines 12-22. Between the sample cards (104) of Williams et al. and the stacker (107), however, there is simply no physical linkage that holds the cards within the stacker that must be broken in order to remove the card from the stacker. Rather, the sample cards are loosely placed within the stacker and can be readily lifted, and thereby removed, from the stacker.

In addition, the sample cards (104) of Williams et al. do not anticipate the discrete sample nodes of the presently claimed invention. As set forth in the present specification, a discrete sample node is operative to carry a discrete, individual sample. Thus, for example, the specification states: "[c]ross contamination is virtually eliminated by storing the samples on discrete sample nodes 529." *See* page 34, lines 16-17; see also page 32, lines 7-9. In contrast, the sample cards of Williams et al. are designed to hold a plurality of samples, positioned as an array of spots on a single sample card. *See* WO 96/11406 at page 18, lines 29-30, and Figure 9.

The foregoing differences between the presently claimed invention and the card stacker of Williams et al. are further highlighted by the Board of Patent Appeals and Interferences' recent Decision on Appeal issued in connection with this application. *See* Decision on Appeal dated December 29, 2008, in Appeal 2008-2172. As held by the Board, each sample node of the present invention "is separately attached at a specific location in removable manner to any manner of structural array, as Appellant contends." *See* Decision on Appeal at page 3. With regard to the relationship between sample nodes and sample cards, the Board held that "contrary to the Examiner's position, the tested sample is not 'discrete' until it is removed from the sample card." Thus, the Board clearly found that sample cards (*e.g.*, that include samples spotted upon them) do not anticipate discrete sample nodes removably attached to a structural array, as claimed in the present invention.

More generally, Applicant notes that the sample repositories of WO 01/31333 and WO 01/31317, the prior art documents relied upon by the Examiner in Appeal 2008-2172, are highly similar to the sample repository of Williams et al. In each case, there is a card stored in some form of repository. For example, with regard to WO 01/31333, the Board noted that application disclosed DNA samples stored on cards in a DNA Repository. *See* Decision on Appeal at page 3. Similarly, with regard to WO 01/31317, the Board noted that the application disclosed slides having a flexible substrate on which samples were deposited, the substrate being contained in a relatively rigid frame. *See id.* at page 4. The slides were stored in a repository consisting of racks or drawers. *See* WO 01/31317 at page 4, lines 19-24 and Fig. 1. Williams et al., if anything, is more basic than the sample card repository disclosed in WO 01/31317. After considering the disclosures of the WO 01/31333 and WO 01/31317 applications, the Board unambiguously held that neither application anticipated the presently claimed invention because

neither "described to one skilled in the art an embodiment of a sample carrier falling within representative claim 1." See Decision on Appeal at page 5. Because of the similarity between the card stacker of Williams et al. and the sample repositories of the prior art references considered by the Board on appeal, an anticipation rejection based on the card stacker of Williams et al. must necessarily fail.

For at least the foregoing reasons, Applicant respectfully submits that Williams et al. fails to anticipate the presently claimed invention. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

Rejoinder of Withdrawn Claims

Applicant submits that the foregoing amendments and remarks overcome all of the pending rejections of claims 1-40 and 58-69. Because withdrawn method claims 41-48 contain all the limitations of composition claim 1 and withdrawn method claims 49-57 contain all of the limitations of composition claim 20, Applicant hereby requests rejoinder of withdrawn method claims 41-57. *See* MPEP 821.04(b).

CONCLUSION

In light of the foregoing remarks, Applicant respectfully submits that claims 1-69 satisfy all the criteria for patentability and are in condition for allowance. Applicant hereby requests that withdrawn method claims 41-57 be rejoined at this time, and further requests that the Examiner reconsider this application with a view towards allowance and early passage of claims 1-69 to issuance. The Examiner is invited to call the undersigned attorney, if a telephone call could help resolve any remaining items.

Pursuant to 37 CFR § 1.136(a)(3), the Commissioner is hereby authorized to charge all required fees, including fees under 37 CFR § 1.17 and all required extension of time fees, or credit any overpayment, to Deposit Account No. 50-1283.

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